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Dairy Production

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AGRICULTURAL MARKETING SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

No. 15

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JULY 15, 1941

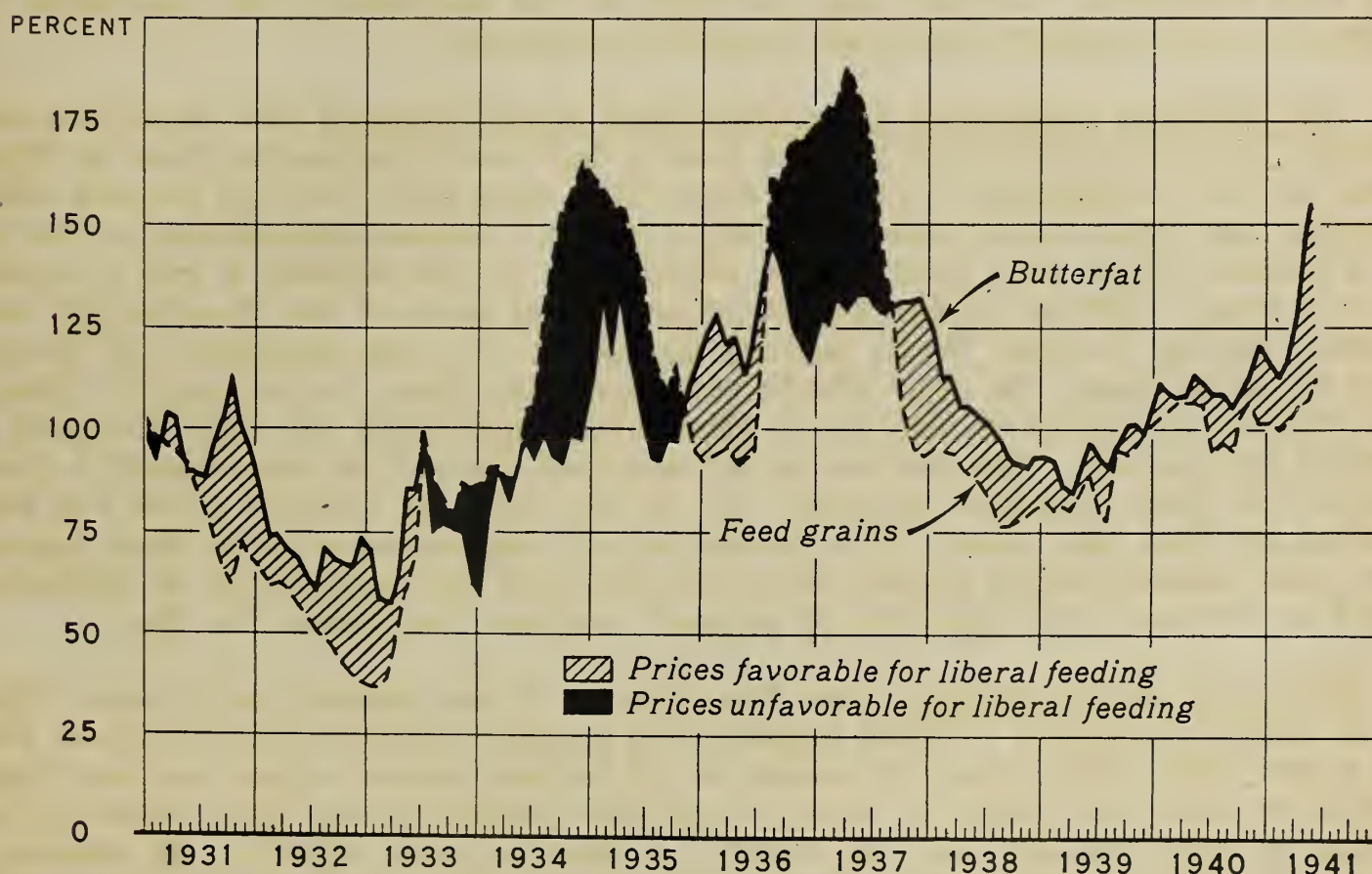
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U. S. Department of Agriculture

PRICES OF BUTTERFAT AND FEED GRAINS, UNITED STATES, 1931-41

PRICES RECEIVED BY FARMERS, EACH AS A PERCENTAGE OF THE 1931-40 AVERAGE FOR SAME MONTH



U. S. DEPARTMENT OF AGRICULTURE

NEG. 467 AGRICULTURAL MARKETING SERVICE

WHEN THE PRICE WHICH FARMERS RECEIVED FOR BUTTERFAT IS COMPARED WITH THE 10-YEAR AVERAGE FOR THE SAME MONTH IT IS APPARENT THAT THE JUNE PRICE, AT 55 PERCENT ABOVE THE 10-YEAR AVERAGE, WAS HIGHER FOR THE SEASON THAN THE PRICE IN ANY MONTH DURING THE PAST 10 YEARS. SIMILAR CALCULATIONS FOR PRICES BEING RECEIVED FOR FEED GRAINS SHOW THEM INCREASING BUT STILL ONLY 12 PERCENT ABOVE THE 10-YEAR AVERAGE FOR JUNE. EVEN THOUGH THE RELATION OF THE PRICE OF MILK TO THE COST OF FEED IS LESS FAVORABLE FOR DAIRYMEN IN SOME MARKET MILK AREAS, THE INDICATIONS ARE THAT IN NEARLY ALL STATES THE COWS WILL BE WELL FED THIS SUMMER WHEREVER SUPPLEMENTARY FEEDING IS NEEDED TO MAINTAIN MILK PRODUCTION.

DAIRY PRODUCTION SUMMARY

Milk production continues high compared with average but in recent weeks the increase over a year ago has been only that due to the increase in cows. There are further signs of a shift towards fall freshening in the North Central States. This may hasten the seasonal decline during the next few months but may increase production later on.

Pastures for dairy cows are excellent west of the Mississippi, rather poor but improving south of the Ohio and along the Atlantic Coast, very poor in northern New York and part of New England, and getting dry in Michigan and part of Wisconsin.

Present crop prospects have rarely been excelled. With average weather influences from now on the production of both feed grains and hay should be ample for the expected 5 to 6 percent net increase in livestock and poultry without drawing on feed reserves. The hay crop is short in the northeast, but prospects for both hay and grain appear excellent from Ohio westward.

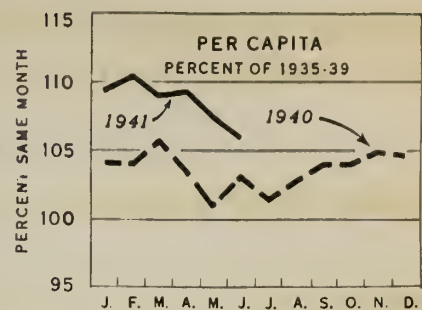
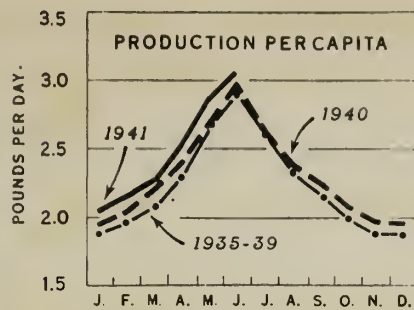
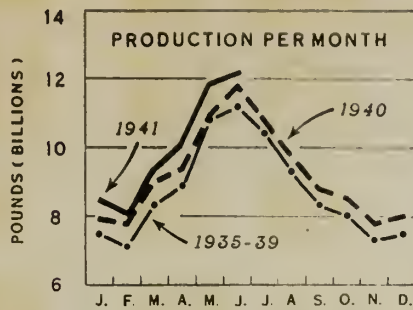
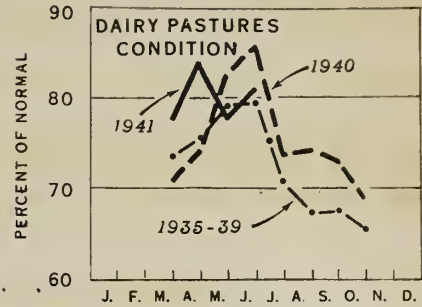
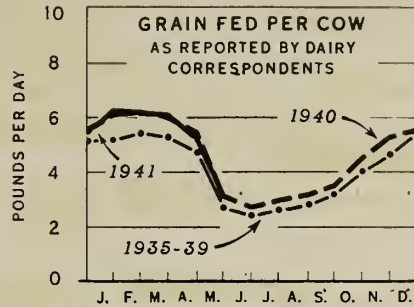
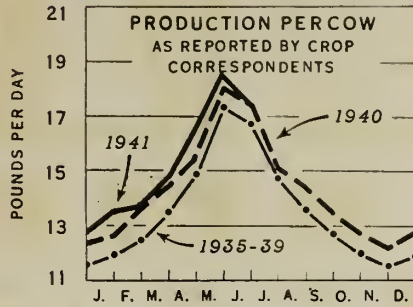
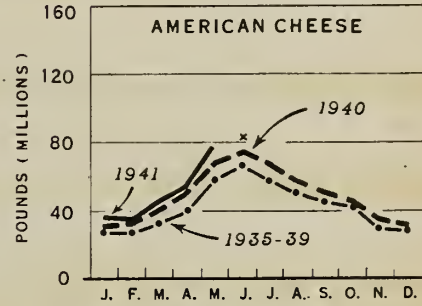
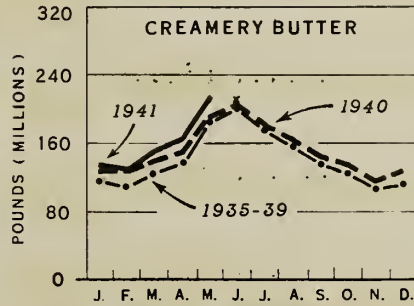
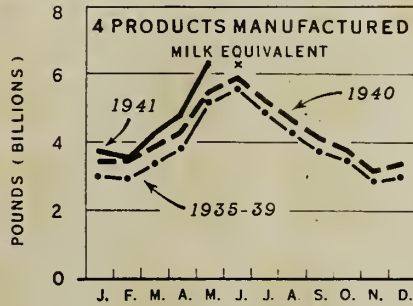
The combined production of manufactured dairy products has continued heavy, substantially above production in past years, but less outstanding than in May. The June total was probably 8 percent above June last year, and 14 percent above the average for June during the preceding 5 years. Butter production in June was about 6 percent above last year and in early July it was between 2 and 3 percent above last year. Butter production continues heavy west of the Mississippi and in the South, but in the East North Central States it has been decreased by diversion of milk to other uses. As some plants were operated close to capacity in June, such diversion is likely to become of increasing importance now that the peak of production has passed. The production of American cheese in June showed a little less than the usual increase over May but it was still 11 percent above the record production of June last year. The production of evaporated milk in June appears to have been substantially higher than last year but the percentage of increase is expected to be much less than the 28 percent increase indicated for May.

Prices of dairy products show the effects of new demand conditions. The price of butter is almost a third higher than a year ago and higher than at this season since 1930. The price of cheese is 45 percent above a year ago and higher in comparison with the price of butter than the average in any July since 1919. The price of milk for city use, as usual, is changing more slowly. At present, it is 6 percent higher than a year ago but lower than usual in comparison with the price of butter.

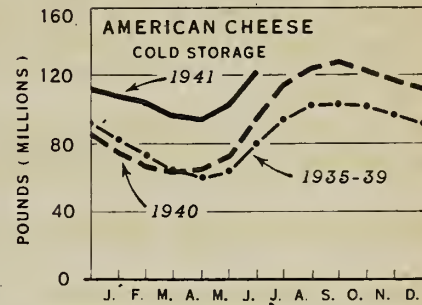
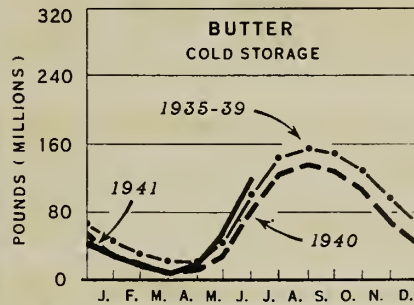
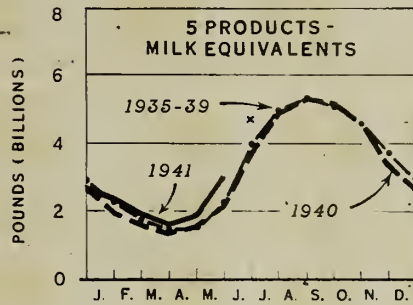
The prices of feed grains on farms have changed but little. In mid-June, they averaged about 12 percent higher than a year ago and abnormally low in comparison with butterfat. Prices of feedstuffs have risen in response to the demand for more feed for milk cows and poultry. Soybean meal, cottonseed meal and linseed meal average about \$5.00 per ton higher than in early June -- increases of about 20 percent.

Farm wage rates are up sharply, averaging 24 percent higher than a year ago with some of the sharpest increases in market milk areas. Connecticut farmers who are able to secure help are paying an average of \$48.00 per month and board, an increase from \$36.75 last year. In California the corresponding rate averages \$60.00, compared with \$45.50 last year.

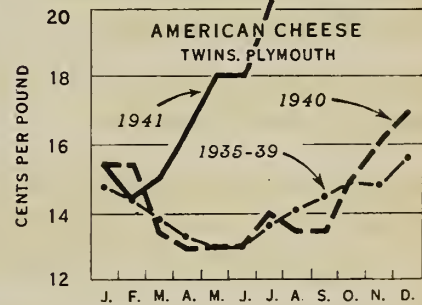
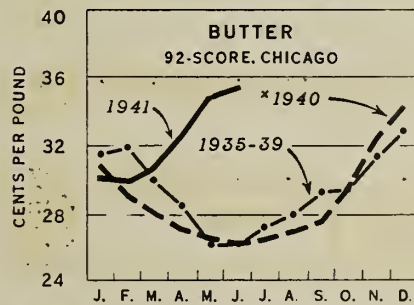
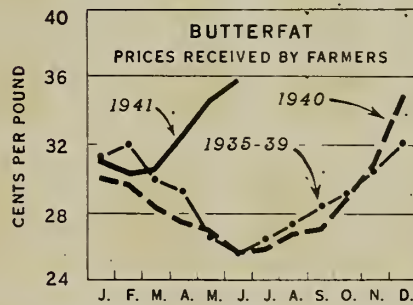
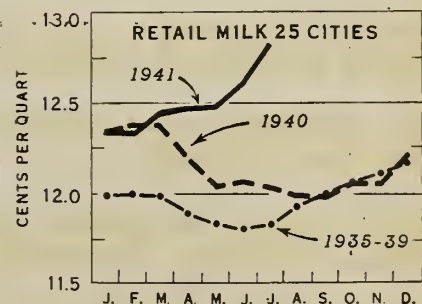
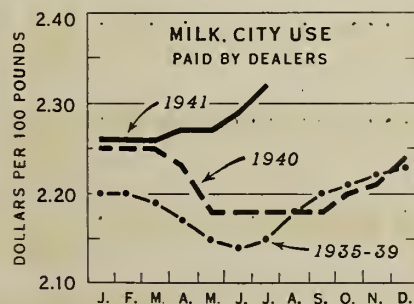
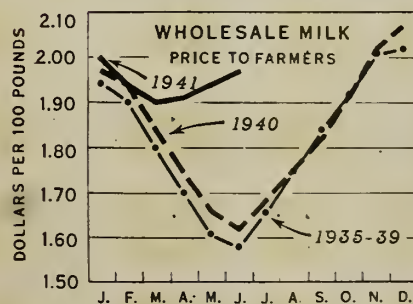
DAIRY PRODUCTION: GRAPHIC SUMMARY FOR THE UNITED STATES

MILK
PRODUCTION
ON FARMSMILK
PRODUCTION
FACTORSDAIRY
PRODUCTS
MANUFACTURED

STOCKS



PRICES

PRICE OF
MILK

* APPROXIMATION BASED ON INFORMATION AVAILABLE TO ABOUT 12TH OF CURRENT MONTH

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Dairy Production

July 15, 1941

SUMMARY OF DAIRY STATISTICS FOR THE UNITED STATES

				1941			
				Average		Total or	Percent
				1935-39	1940	average	of 1940
MILK PRODUCTION ON FARMS							
Total, per month..... mil.lb.	Apr.	8,928	9,444	10,020	a/	106.1	
	May	10,719	11,076	11,826	a/	106.8	
	June	11,195	11,805	12,180	a/	103.2	
Per capita, daily average..... lb.	May	2,676	2,712	2,876	a/	106.0	
	June	2,886	2,985	3,059	a/	102.5	
Per cow, per day..... lb.	May 1	14.87	15.42	16.54		107.3	
(As reported by crop correspondents)	June 1	17.35	18.03	18.55		102.9	
	July 1	16.75	17.43	17.40		99.8	
DAIRY PASTURES: Condition, % of normal..... pct.	June 1	79.2	82.6	77.8		94.2	
	July 1	79.6	85.5	80.9		94.6	
PRODUCTION OF MANUFACTURED DAIRY PRODUCTS							
Creamery butter, monthly..... mil.lb.	May	186.8	192.6	215.6	b/	111.9	
	June	198.7	204.7	216.5	a/	105.8	
weekly..... week ending	July 3	--	--	--		103.0	
	July 10	--	--	--		102.1	
American cheese..... mil.lb.	May	58.1	65.7	76.7	b/	116.7	
	June	66.9	74.8	83.0	a/	111.0	
Evaporated milk, case..... mil.lb.	Apr.	189.6	230.4	258.0		112.0	
	May	252.0	276.4	353.8		128.0	
4 products, milk equivalent..... Mil.lb.	Apr.	3,855	4,387	4,751		108.3	
(Creamery butter x 21, all cheese except skim	May	5,235	5,533	6,325		114.3	
x 10, canned cond. & evap. milk x 2.2)	June	5,602	5,896	--		108.2	
STOCKS ON HAND							
Butter in cold storage..... mil.lb.	June 1	43.4	25.5	56.8		222.7	
(Including government holdings)	July 1	101.3	81.0	120.3	a/	148.5	
Commercial holdings, only.....	July 1	92.6	78.9	119.4	a/	151.3	
American cheese..... mil.lb.	June 1	64.2	73.6	102.9		139.8	
(Cold storage holdings)	July 1	81.0	96.9	121.2	a/	125.1	
Evaporated milk, case..... mil.lb.	May 1	116.7	207.7	126.2		60.8	
(Manufacturers' stocks)	June 1	206.9	287.8	173.8		60.4	
5 products, milk equivalent..... mil.lb.	May 1	1,476	1,507	1,815		120.4	
(Butter, all cheese, canned cond. & evap.	June 1	2,266	2,193	2,992		136.4	
milk plus cream in cold storage)	July 1	3,956	3,747	4,732	c/	126.3	
PRICES							
Butterfat, per poundct.	May 15	26.6	26.9	34.7		129.0	
(Prices received by farmers)	June 15	25.6	25.6	35.7		139.5	
Butter, wholesale, per pound..... ct.	June	26.26	26.27	35.40		134.8	
(92 score, Chicago)	July	27.27	26.48	34.50	d/	130.3	
American cheese, wholesale, per pound..... ct.	June 15	13.05	13.00	18.00		138.5	
(Twins, Plymouth, Wisconsin)	July 15	13.65	14.00	20.25		144.6	
Milk, wholesale, per 100 poundsdol.	May 15	1.61	1.66	1.95	b/	117.5	
(All purposes, prices received by farmers)	June 15	1.58	1.63	1.97	a/	120.9	
Milk for city distribution, per 100 pounds...dol.	June	2.14	2.18	2.29		105.0	
(Prices paid by dealers, 3.5% basis)	July	2.15	2.18	2.32		106.4	
Milk, retail, delivered, per quart..... ct.	June	11.79	12.06	12.64	b/	104.8	
(Average, 25 markets)	July	11.82	12.02	12.82	a/	106.7	

a/ Preliminary. b/ Preliminary revision. c/ Forecast or interpolation. d/ Price July 14

Milk Production on farms during June is estimated at 12.2 billion pounds, 3 percent higher than in June of last year. Toward the end of the month, however, production was up only about 2 percent compared with 5 percent at the beginning. In the first half of 1941 milk production on farms in the United States has totaled 59.8 billion pounds, about 5 percent more than in the same period last year and an all time record. The per capita production of milk during June, estimated at 3.06 pounds per day, was the highest in the dozen years of record and nearly 6 percent above the 1935-39 average for June.

MONTHLY MILK PRODUCTION ON FARMS, UNITED STATES
1935-39 Average, 1940, and 1941

Month	Monthly Total				Daily Average per Capita		
	Average			1941	Average		
	1935-39	1940	1941	1940	1935-39	1940	1941
	Million pounds		Pct.		Pounds		
January	7,480	7,952	8,448	106	1.871	1.950	2.058
February	7,124	7,801	8,008	103	1.957	2.044	2.159
March	8,342	9,006	9,331	104	2.084	2.207	2.271
April	8,928	9,444	10,020	106	2.304	2.390	2.519
May	10,719	11,076	11,826	107	2.676	2.712	2.876
June	11,195	11,805	12,180	103	2.886	2.985	3.059
Jan.-June Inc'l	53,788	57,084	59,813	104.3	2.298	2.382	2.493
July	10,443	10,865	--	--	2.604	2.657	--
August	9,530	9,812	--	--	2.325	2.398	--
September	8,338	8,880	--	--	2.145	2.241	--
October	7,992	8,510	--	--	1.989	2.077	--
November	7,303	7,845	--	--	1.876	1.977	--
December	7,516	8,076	--	--	1.868	1.968	--
Yearly Total	104,710	111,072	--	--	2.216	2.301	--

Milk production per cow, despite more than the usual decline between June 1 and July 1, continued unusually heavy and on the latter date was about the same as at that time last year and only about 2 percent below the high record for July 1 established a dozen years ago. In all major groups of States milk production per cow in herds kept by the Department's crop correspondents was well above the 10-year average for the first of July. In the Western group production per cow was more than 12 percent above the 1930-39 average, while in the other groups of States it was 6 or 7 percent above.

The rather general high level of production appears to reflect producer responses to the unusually high prices of dairy products that have been maintained through the normal surplus season. Pastures in the principal mid-western and western dairy sections have also furnished milk cows an abundance of green feed in areas where pastures have often begun to dry up at this time of the year. In eastern areas where pastures have been affected by drought, dairymen have been drawing freely on grain and concentrated feeds to keep up the production of their herds.

In the North Central States production per cow this year appears to have reached a peak somewhat earlier in June than usual and the decline in production from June 1 to July 1 was considerably greater than average. Reports from farmers indicate that in many parts of this area the milk cows this year suffered more severely than usual from flies, mosquitoes and other insect pests, and this, combined with the abnormally high temperatures of the last week of June probably had some influence on production per cow on July 1. However, in the North Central group of States the proportion of milk cows reported milked also failed to show the usual seasonal rise from June 1 to July 1. While in the western part of this group this condition may reflect a tendency to draw more dual purpose cows into the milking herds in response

to encouraging dairy product prices, such an explanation would be unlikely to account for a similar situation in dairy States farther east. Late last winter the percent of cows in milk in the East North Central States turned up somewhat earlier than usual and since early 1941 has been unusually high. The apparent early approach of the seasonal down swing this summer may anticipate somewhat heavier freshening in the fall and winter months than has been the case for several years. The sharp drop in production per cow between June 1 and July 1 this year follows rather closely the seasonal curve in the early 1930's when fall freshening was relatively heavy.

In the North Atlantic States the seasonal curve of milk production per cow has followed about the usual seasonal trend, but the down turn apparently began somewhat earlier than a year ago when the season was a little later and pastures furnishing more abundant summer forage than this year. In this area the proportion of milk cows milked on July 1 was the highest ever reported. In the Western States where pastures were furnishing good grazing and weather continued cool, production per cow was well maintained and, on July 1, was somewhat higher than last year.

In the country as a whole July 1 milk production per cow in herds kept by crop correspondents averaged 17.40 pounds compared with 17.43 pounds on the same date last year and a 1930-39 average of 16.25 pounds for the date. The proportion of milk cows reported milked in these herds averaged 77.6 percent, less on that date than in any of the previous four years, but higher than on any July 1 prior to 1937.

Pastures in many important eastern and northeastern dairy sections were rather poor on July 1 and not nearly so good as a year earlier, but west of the Mississippi River grazing conditions were unusually good. For the country as a whole the condition of dairy pastures averaged 81 percent of normal on July 1 compared with 86 percent a year ago and a July 1 average of 74.2 percent in the 1930-39 period including a number of drought years and 84.9 percent in the preceding decade.

Dry weather in New York and northern New England during June more than offset moderate improvement of pastures in other North Atlantic States and the condition of dairy pastures in this region averaged only 65 percent of normal on July 1, the lowest for the date since the turn of the century. In the Southern States east of the Mississippi, the condition of pastures, although not nearly so bad as in 1936, averaged the third lowest for July 1 since 1930. The effects of the eastern drought on pasture condition have been most serious in two areas--northern New York and the lower Tennessee Valley. Central Michigan and eastern Wisconsin constituted another important dairy area where dry weather had begun to seriously affect pastures July 1. Since the first of the month rainfall in the Eastern States has been rather general, and in mid-July pasture prospects there were generally more favorable than at the beginning of the month but in northern New York, Central Michigan and eastern Wisconsin more rain was seriously needed.

In most of such important dairy manufacturing States as Minnesota, Wisconsin, Iowa, Idaho, Washington, Oregon and California, milk cows were well supplied with green feed on July 1, for the condition of pastures in each of these States averaged 88 percent of normal or better. The unusually good weather for pastures in the entire western half of the country this year is evidenced by the fact that July 1 pasture condition in much of this area again compares favorably with the average for the date in pre-drought years.

DAIRY PRODUCTION

Milk Produced per Milk Cow in
Herds kept by Reporters 1/

Condition of Dairy Pastures 2/

State	July 1 : Av. 1930-39 :	July 1 1940	July 1 1941	July 1 : Av. 1930-39 :	July 1 1940	July 1 1941
	Pounds			Percent		
Me.	16.3	17.3	18.7	85.7	90	70
N.H.	17.1	17.7	17.0	84.0	91	68
Vt.	17.6	19.6	19.4	86.4	96	66
Mass.	18.8	19.5	19.3	83.4	91	69
R.I.	3/	3/	3/	83.5	90	78
Conn.	18.6	19.2	20.7	86.1	95	82
N.Y.	21.2	22.9	22.0	78.1	96	57
N.J.	20.3	20.9	22.0	76.4	86	64
Pa.	19.4	21.3	21.0	76.2	92	73
N.Atl.	19.65	21.31	20.96	79.4	93.6	65.2
Ohio	18.4	20.0	18.5	72.4	96	79
Ind.	16.6	18.1	17.9	72.6	94	81
Ill.	16.8	18.5	18.4	73.4	86	85
Mich.	21.0	22.2	21.4	76.9	96	78
Wis.	21.2	22.7	22.9	77.4	93	89
E.N.Cent.	19.39	20.72	20.59	75.2	93.0	83.9
Minn.	19.4	20.7	19.4	76.2	80	90
Iowa	17.1	18.3	18.7	76.7	82	88
Mo.	11.9	13.6	13.5	69.5	82	78
N.Dak.	17.7	19.4	19.9	61.2	76	96
S.Dak.	15.7	17.2	16.5	60.1	73	86
Nebr.	16.2	17.6	18.3	68.7	59	83
Kans.	14.9	15.2	15.9	66.1	70	88
W.N.Cent.	16.32	17.59	17.53	71.1	76.5	87.3
Del.	3/	3/	3/	76.5	86	72
Md.	15.9	17.5	16.6	74.8	80	71
Va.	13.5	13.8	13.8	75.8	90	66
W.Va.	14.6	14.7	14.7	72.5	89	78
N.C.	12.8	13.3	13.3	73.6	82	63
S.C.	10.8	12.7	11.4	65.2	75	67
Ga.	9.2	10.0	9.5	67.8	80	64
Fla.	3/	3/	3/	76.6	81	72
S.Atl.	12.24	13.17	13.04	72.6	83.5	67.8
Ky.	13.4	14.6	14.4	72.8	89	72
Tenn.	11.6	12.1	12.1	68.9	77	51
Ala.	8.8	9.2	9.4	69.0	81	64
Miss.	8.4	8.1	7.8	70.2	80	64
Ark.	10.0	10.4	10.6	71.6	82	70
La.	3/	3/	3/	70.2	82	87
Okla.	12.3	13.0	13.4	65.9	77	91
Tex.	10.3	10.5	10.9	68.5	81	96
S.Cent.	10.66	11.04	11.28	69.3	81.0	77.4
Mont.	17.5	19.3	20.5	70.7	89	89
Idaho	21.1	21.3	22.2	85.1	86	99
Wyo.	15.9	19.8	18.4	79.8	85	99
Colo.	16.3	18.7	17.8	71.5	67	96
N.Mex.	3/	3/	3/	64.9	71	100
Ariz.	3/	3/	3/	80.1	76	90
Utah	3/	3/	3/	74.2	68	92
Nev.	3/	3/	3/	81.9	89	95
Wash.	21.3	22.8	22.2	81.1	82	98
Oreg.	19.6	20.7	21.2	82.2	81	97
Calif.	19.5	20.4	21.0	74.9	76	91
West.	18.25	20.16	20.53	77.0	81.6	94.3
U.S.	16.25	17.43	17.40	74.2	85.5	80.9

1/ Averages represent the reported daily milk production of herds kept by reporters divided by the total number of milk cows (in milk or dry) in these herds. Figures for New England States are based on combined returns from Crop and Special Dairy reporters and are weighted by counties. Figures for other States, regions, and U. S. are based on returns from Crop Reporters only.

2/ State averages are based on reports by crop correspondents. For regional and U.S. averages the States are combined in proportion to the importance of pastures to dairy production on July 1.

3/ State averages omitted because of instability, but reports are included in arriving at regional averages.

PRICES OF BUTTERFAT AND GRAIN

In mid-June the prices received by farmers for butterfat averaged 35.7 cents per pound. This was higher than in June in other years since 1929 and, as shown by the graph on the front cover, it was higher in comparison with average for the date than prices in other months during the last ten years. At the same time the prices that farmers received for corn, oats, barley and a little cottonseed, combined in proportion to the quantities fed to milk cows, averaged 1.15 cents per pound. This price was only 12 percent above the average price of this ration in June during the past ten years. With butterfat 55 percent above average the difference between the percentages was more favorable for dairymen than in any month in ten years except October 1931.

As long as the price of butterfat remains high and corn and oats are abundant and relatively cheap it can be assumed that farmers in the main butter-producing States will feed these grains generously except while their cows are dry or pastures are so good that little or no supplementary feeding is necessary. This may be demonstrated by a review of the reports received from crop correspondents and dairy correspondents in the West North Central States, for that is an area where butterfat contributes two-thirds of the value of all dairy products sold from the farms and where feed grains and wheat constitute normally four-fifths of all grain and concentrates fed to the cows.

In this area the quantity of grain reported fed to milk cows from fall till spring has varied greatly from year to year and about in proportion to the supply of feed grain on farms in the United States. Production per cow seems to have varied much less than rates of feeding, partly because in 1932 grain was so low in price that much of it was fed wastefully and without being ground while in late 1934 and 1936 the rations were small in pounds but unusually high in quality. When 1932 and the drought years are excluded from the comparisons it has seemed to take about a 10 percent increase or decrease in grain feeding to cause a 6 to 8 percent change in milk production per cow.

If the large quantity of wheat fed in 1931, local variations in feed supplies, and numerous other factors that are of importance in individual seasons are disregarded, the farm supply of feed grains per unit of livestock during 12-month periods beginning July 1 and stocks of corn and oats on farms at the end of each calendar year have compared as shown below with the rate at which milk cows were reported fed by dairy correspondents in the West North Central States during October 1 to May 1 periods beginning in years shown, and the rate of production per cow reported by the crop correspondents in these periods, each series being expressed in percentage of its 1931-40 average.

	: 1931	: 1932	: 1933	: 1934	: 1935	: 1936	: 1937	: 1938	: 1939	: 1940
U.S. Supply of feed grains	: 97	: 111	: 92	: 71	: 101	: 75	: 109	: 116	: 111	: 117
U.S. Stocks of corn and oats	: 103	: 122	: 93	: 55	: 99	: 58	: 111	: 118	: 120	: 121
W.N.C. Feeding of milk cows	: 111	: 117	: 89	: 64	: 98	: 75	: 104	: 112	: 113	: 115
W.N.C. Milk per cow	: 102	: 100	: 94	: 90	: 95	: 94	: 100	: 107	: 106	: 111
	: :	: :	: :	: :	: :	: :	: :	: :	: :	: :

Another method of calculation is to compare the prices of butterfat and feed. In June, with butterfat at 35.7 cents per pound and feed grain at 1.15 cents per pound, a pound of butterfat was equal in price to 31 pounds of the feed grain. This ratio indicates an unusually favorable opportunity for feeding, comparable figures for the past 30 years showing only two other Junes when this "butterfat-feed grain price ratio" was above 30. When the averages of corresponding price ratios during successive winter periods are compared with the quantities of grain reported fed in the West North Central States, the rates of feeding appear to have been roughly proportional to the ratios, but the relationship has not been uniform. This seems to have been due in part to a delay in the adjustment of feeding as prices have changed, but perhaps also because the ratio itself depends on prices and is affected by changes in the rate of feeding in so far as these changes affect either the supply of dairy products or the demand for feed.

On the basis of present conditions and prospects in the principal butter-producing States pastures unusually good, feed grain plentiful, crop prospects excellent, and prices of dairy products encouraging -- it is reasonable to expect that fall and winter milk production per cow in this area will average several percent higher than in any previous year. It may be best not to figure too far ahead because present conditions appear dependent on activity without actual war. The adjustments that would be made in case of war are unpredictable and would depend largely on how much we have to tighten our belts. Between 1915 and 1918 butter production declined and oleomargarine consumption increased 138 percent.